

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPLICANT(s): Terho Kaikuranta

SERIAL NO.: 09/847,142

ART UNIT: 2612

FILING DATE: 05/02/2001

EXAMINER: Wong, Albert
Kang

TITLE: KEYPAD ILLUMINATION ARRANGEMENT THAT ENABLES
DYNAMIC AND INDIVIDUAL ILLUMINATION OF KEYS, AND
METHOD OF USING THE SAME

ATTORNEY

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Board of Patent Appeals and Interferences
United States Patent and Trademark Office
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REPLY BRIEF

This is a Reply Brief submitted in response to the Examiner's Answer dated 12
December 2007.

STATUS OF CLAIMS

Claims 1-29 are pending in the application.

Claims 1-29 have been finally rejected.

The claims on appeal are 1-29.

GROUND S OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 1-7, 11, and 16 stand rejected as unpatentable over the combination of Thornton (US 5,847,336) in view of Stanek (US 5,936,554) under 35 U.S.C. 103(a).
2. Claims 8 and 9 stand rejected as unpatentable over the combination of Thornton, Stanek, and JP 11-126047 under 35 U.S.C. 103(a).
3. Claim 10 is rejected as unpatentable over the combination of Thornton, Stanek, JP 11-126047, and JP 11-327509 under 35 U.S.C. 103(a).
4. Claims 12-15 stand rejected as unpatentable over the combination of Thornton, Stanek, and JP 08-148056 under 35 U.S.C. 103(a).
5. Claim 17 is rejected as unpatentable over the combination of Thornton, Stanek, and JP 08-265413 under 35 U.S.C. 103(a).
6. Claim 18 is rejected as unpatentable over the combination of Thornton, Stanek, and JP 06-274261 under 35 U.S.C. 103(a).
7. Claims 19 and 20 stand rejected as unpatentable over the combination of Thornton, Stanek, and JP 11-88948 under 35 U.S.C. 103(a).
8. Claims 21-25 stand rejected as unpatentable over Stanek under 35 U.S.C. 103(a).
9. Claims 26-28 stand rejected as unpatentable over the combination of Stanek, Ugmark (US 6,222,466), and Thornton under 35 U.S.C. 103(a).
10. Claim 29 stands rejected as unpatentable over Stanek under 35 U.S.C. 103(a).

ARGUMENT

1. With respect to the rejection of claims 1-7, 11, and 16 over the combination of Thornton in view of Stanek, Applicants respectfully maintain that the cited combination fails to disclose or suggest all the features of present claims 1 and 16. In particular, neither reference discloses a keypad for a mobile phone with light sources that are semiconductor light emitting devices made of layered foil structures, as recited by claims 1 and 16. Because neither reference discloses light emitting devices, the cited combination cannot disclose or suggest all the features of the invention as claimed and cannot render these claims obvious.

Applicants note the Examiner's argument that it would have been obvious to substitute a conventional LED for an OLED. Substituting a conventional LED for an OLED clearly yields a keypad that has no light emitting devices with layered foil structures. Thus, such a substitution would yield a device without an element of present claims 1 and 16 and cannot render claims 1 and 16 obvious.

None of the references disclose or suggest utilizing OLEDs with a mobile phone keypad. The suggestion of such a relationship is completely missing from the cited art.

The cited art is different and too remote. Thornton illustrates a conventional technical solution for key illumination using separate LEDs for each individual key. The mobile phone keypad of the present claims includes layered foil structures for dynamic illumination. While OLEDs are layered foil structures, they are technically far removed from the cited references. There are three separate and different technical fields of art present and they are too remote from each other, have no binding technical features, and have completely different disclosures, all of which preclude their combination. The skilled person would not look to other references when starting from any of the cited references.

There is no reasonable expectation of success when combining the references because the PC keyboard of Stanek is simply too big. More importantly, Thornton's LED based keypad structure is inappropriate for using OLEDs because the design the structure of the keypad mechanics shown in Figures 4, 6, 3 and 1 of Thornton is incompatible with OLED based layer structures and the LED (18) of Thornton is not replaceable with OLED technology.

At least for these reasons, Applicants respectfully submit that claims 1 and 16 are patentable over the combination of Thornton and Stanek.

1.1 Claims 2-15 and 17-20 depend from claims 1 or 16. None of the additional cited art disclosed the features of claim 1 and 16 missing from the combination of Thornton and Stanek for all the reasons previously cited.

2. Applicants respectfully maintain that claims 21-25 are patentable over Stanek because Stanek fails to disclose or suggest all the features of claim 21. Stanek fails to disclose or suggest a keypad for a mobile phone having a layer including a switching function and a layered foil illumination structure for each of the plurality of keys, integrated together. It would not have been obvious to substitute an OLED for a conventional LED because Stanek has no disclosure related to such a feature.

2.1 Claims 22-28 depend from claim 21. None of the additional cited art disclosed the features of claim 21 missing from Stanek for all the reasons previously cited.

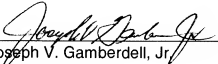
3. Claim 29 is patentable over Stanek because Stanek fails to disclose a mobile phone having a layer including a switching function and a layered foil illumination structure for each of a plurality of keys, integrated together.

4. Applicants wish to note that the present invention is not restricted to merely use, but includes building and manufacturing a mobile phone having layered foil structures as an illumination source. In the technical field of mobile phone

illumination, one skilled in the art would not be disposed to build such a phone in early 2000. The issues involved are more complex than simply replacing LEDs with OLEDs because a mobile phone must be designed and built around a selected illumination technology.

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Respectfully submitted,



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12 May 2008
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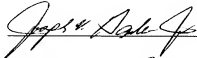
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